PHILADELPHIA MEDICAL TIMES.

SATURDAY, OCTOBER 3, 1874.

ORIGINAL COMMUNICATIONS.

CASE OF COMPOUND COMMINUTED FRACTURE OF THE SKULL,

INVOLVING THE LEFT TEMPORAL, SPHENOID, AND SUPERIOR MAXILLARY BONES; LACERATION OF THE BRAIN; PARALYSIS OF THE FIRST, SECOND, THIRD, FOURTH, FIFTH, SIXTH, AND SEVENTH CRANIAL NERVES; RECOVERY; WITH EXPERIMENTS UPON THE IRIS; DEATH THREE MONTHS AFTER THE INJURY, FROM ABSCESS OF THE BRAIN.—WITH REMARKS.

BY THOMAS G. MORTON, M.D.,

One of the Attending Surgeons to the Pennsylvania Hospital.

W. H., aged 47, was brought to the Pennsylvania Hospital as a "recent accident," late in the afternoon of the 24th of July, 1873. No reliable account of the case could be obtained at the time of his admission; but it was afterwards ascertained that the man had left Phœnixville on a coal-train the evening before, a collision occurred, and he was thrown from the train, and found some hours afterwards in an unconscious state. On admission, the left temporal bone was found terribly comminuted, presenting an opening an inch and a half in diameter, with an extensively lacerated dura mater; numerous fragments of bone were removed from the brain itself. The fracture extended deeply into the petrous portion of the temporal bone, and apparently involved to a considerable extent the base of the cranium; large lacerations were found involving the ear and side of the head, and several teeth had been broken off. Profound coma was present during the succeeding ten days; when a gradual improvement was observed, and paralysis was found on the left side of the face. On being questioned concerning the accident, his answers were variable and quite unsatisfactory. Very great swelling of the face continued for a fortnight or so, and then slowly subsided. The wound suppurated freely, without any disposition to fungus of the brain; the centre of the cornea showed a superficial abrasion. The conjunctiva from the first was congested and markedly œdematous, and the pupil considerably dilated.

FIG. 1.

FIG. 2.

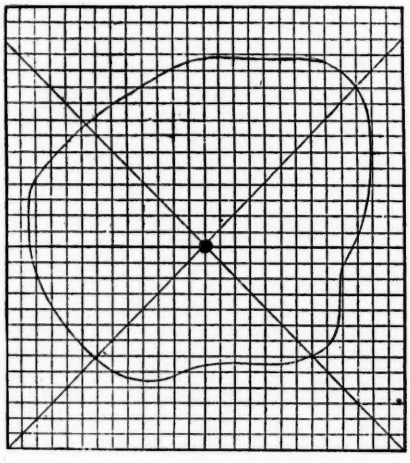
August 30.—There is complete facial palsy on the left side (Fig. 1). The wound has almost closed up. A fistulous track extends from the external ear inwards and forwards; a probe passed in joins a fistulous track from the main wound, and passes directly forward and inward some two inches (Fig. 2). The general condition of the patient is excellent; headache has been a marked symptom, but of late has been considerably less. He walks about as usual, going to and from the hospital; has some difficulty in masticating and swallowing his food; his intellect is probably as clear as before the accident.

September 3.—Examination made in the presence of Drs. William Hunt, H. C. Wood, and others. The cranial nerve-distribution on the right side is normal. On the left side, the first, second, third, fourth, fifth, sixth, seventh, and possibly the ninth nerves are palsied. Irritants and odorous substances, cologne, vinegar, and ammonia, when applied to the left nostril are not perceived. The left eye is stone-blind, is absolutely motionless, and totally devoid of sensibility. The mucous membrane of the lids is also insensitive. The pupil is moderately and regularly dilated, measures one-fifth of an inch in diameter, and does not respond to light. The optic papilla presents white atrophy.

The conjunctiva is passively congested, and slightly œdematous. The cornea is normal, except a superficial central opacity; the lachrymal secretion is slight, and not increased in the least by irritants applied to the conjunctiva. The globe of the eye projects half an inch beyond the right; there is complete ptosis. Anæsthesia exists over the face and brow; sensation exists on the outer edge of the upper eyelid and on the skin of the temple and ear; the muscles of the left side of the face are palsied; the auditory nerve is susceptible of impressions, but these are very imperfectly conducted. There is loss of taste on the left side of the tongue, and absence of sensation of the mucous membrane of this side of the mouth, fauces, tongue, and palate. The line of skin-anæsthesia is measured from a trifle within the median line on the left side of the face, extending along the nose to the upper lip, and outward two inches beyond the corner of the mouth, then upward to a point near the angle of the eye, where sensation exists. The anæsthesia in the brow corresponds to the distribution of the supra-orbital nerve. The cornea has been very superficially abraded in the centre; the conjunctiva when examined two days after the accident was found very much congested, and this condition remains to the present time, with slight œdema. To test the absence of lachrymal secretion, the upper eyelid was securely held open for an hour, at the end of which time the conjunctiva and globe of the eye were intensely congested, and of a purplish-red color. The cornea and conjunctiva were absolutely dry, and it was deemed prudent not to continue the exposure any longer, for fear of permanent injury.

The right eye showed normal acuity of vision, with a presbyopia $= \frac{1}{24}$; but the field of vision is much contracted (Fig. 3).

Fig. 3.



EXPERIMENTS UPON THE PALSIED EYE.

September 4.—The eyeball is absolutely motionless and insensitive; the pupil one-fifth of an inch in diameter; no effect is produced on the iris by light. A solution of atropia, gr. ij to ʒi, applied. In ten minutes the pupil measured one-fourth of an inch, and is regularly dilated.

September 9.—Extract of Calabar bean applied to the conjunctiva; the pupil one-fifth of an inch in diameter; in half an hour the pupil contracted to one-twentieth of an inch.

September 13.—The contracted condition continued for two days, and gradually passed away; the pupil has resumed its dilatation of one-fifth of an inch.

September 20.—Pupil one-fifth of an inch. One-fortieth of a grain of atropia was injected into the patient's arm, with no effect upon either pupil.

September 22.—One-thirtieth of a grain of atropia was injected, with no effect upon either eye; no constitutional symptoms.

September 23.—The right pupil measured one-eighth, the left one-fifth of an inch. One-twentieth of a grain of atropia was injected; in fifteen minutes there was some dryness of the throat, with unsteadiness in walking, dilatation of the pupil of the left eye, and very appreciable enlargement of the right pupil. In three hours the right pupil measured three-sixteenths, the left one-fourth of an inch.

October 1.—During the past few days intense and continued pain in the head has been noticed, and for the first time since the injury a slight movement is observed in the left eyeball, only, however, when the sound eye is moved; there is also some sensation on the outer part of the upper eyelid.

October 8.—Within the past forty-eight hours the patient has had increased pain, intense on the left side of the head; a sudden œdema of the conjunctiva of the lower eyelid has produced excessive ectropion, and, on account of this, the cornea, being exposed at its lower border, presents an extensive cloudiness with a tendency to slough. The lids were accurately approximated with adhesive plaster.

October 10.—The cornea is resuming its normal appearance, and all disposition to further slough has disappeared. The patient has been confined to bed for several days past, on account of intense pain and general prostration.

October 12.—There is scarcely any discharge from the place of original injury.

October 13.—The right pupil measures one-sixteenth of an inch; the left pupil measures one-sixth of an inch.

The cornea is again quite clear; the finger passed over the abraded spot removed all the slough and left the cornea normal.*

From October 13 the patient suffered terribly with cephalalgia, and had little or no disposition to be out of his bed. His appetite became impaired, and finally stupor and coma supervened. For six days he was in a dying condition, unable to articu-

* There is at present in the Pennsylvania Hospital a young man who received a blow at the root of the nose by a bar of iron; he was quite insensible for several days; he is now (October 1) stone-blind in the left eye from the injury; the size of the pupil varies accurately with that of the sound eye; when the sound eye is closed the pupil of the blind eye is dilated; the most powerful light does not produce the least response; the iris remains widely dilated; light admitted to the sound eye produces active contraction of the iris of the blind eye.

November 15, a negro woman was admitted into the Wills Hospital with paralysis of the second, third, fourth, ophthalmic branch of the fifth and sixth cranial nerves on the right side. The eyeball is motionless and insensitive, with ptosis; the pupil dilated, the media of the eye clear, with white atrophy of the optic disk. A solution of atropia in ten minutes produced a great dilatation; and Calabar bean contracted the pupil. The cornea is completely covered by the lid, and remains normal; the secretion of tears is very slight.

late or swallow, with a pulse of 150 and a very rapid respiration. Death occurred October 22, ninety-one days after the receipt of the injury.

Post-mortem.—On removing the calvarium, there was considerable venous congestion of the dura mater and pia mater; lymph attachments glued the brain and membranes firmly along the region of fracture; the anterior portion of the middle lobe of the brain was found softened and wasted, and on pressing it aside a quantity of purulent matter escaped; on slicing off the cerebrum a large abscess was found which involved the entire extent of the left middle lobe, the fissure of Sylvius, and to a considerable extent the anterior lobe; and the left lateral ventricles were full of pus in all their horns. The abscess involved the origin of the left olfactory, which showed no adhesion to the cribriform plate, and the filaments of the nerve were absent, the optic tract, crus cerebri, origins of the third and fourth nerves; the fifth and sixth nerves were also involved as they passed along to their places of emergence; the nerves which passed through the sphenoidal fissure, foramen rotundum, oval and spinous foramens, were softened, being directly in the line of the abscess and fracture. The left optic nerve was softened from a point commencing half an inch in front of the chiasm; the choroid plexus was covered with layers of thick lymph; the tubercula quadrigemina and ventriculus tertius were normal. A probe could be introduced into the left ear an inch and a half; into the original wound a probe could be passed downwards and forwards an inch and a half, coming in contact with denuded bone. Opposite the anterior portion of the middle lobe, where the skull had been fractured, a portion of bone had been driven in, and had united at an angle which produced an encroachment upon the space designed for the middle lobe. The line of fracture commences at the meatus auditorius externus, and involves the anterior third of this bony canal and extends through the petrous portion of the temporal bone, dividing it into two nearly equal portions, sweeping away the anterior portion of the carotid canal, then extends to the body of the sphenoid bone, and involves the posterior clinoid process, along the sella turcica, breaking off one-fourth of the body of the sphenoid bone; on the left side of the sella turcica an opening one-fourth of an inch in length and one-twelfth of an inch in breadth is observed, the result of a comminution at the time of injury. The fracture extends to the lesser wing of the sphenoid and into the optic foramen, then to the sphenoidal fissure, the orbital surface of the palate bone, the great wing of the sphenoid, post-orbital edge of the malar bone, extending upwards into the squamous portion of the temporal bone, along the temporal ridge in a curved direction, upwards, downwards, and backwards, to the upper surface of the external auditory meatus. The zygoma, with a portion of the external angular portion of the malar bone, which was separated from the frontal, is absent. All that portion of bone included in the above area described as the line of fracture—namely, the base of the skull, together with the styloid process of the emporal bone and the glenoid fissure—has been entirely separated from its original location, and driven downwards and inwards, and is firmly united angularly one inch below its normal position. All the nerves passing through the oval, round, sphenoid, optic, and stylo-mastoid foramina were involved in the line of fracture, were softened and firmly matted together, and surrounded by pus. The pterygoid process on the left side had been fractured at its base, and irregular union has occurred.

Remarks.—It is remarkable that with such a severe brain-injury, and involving such an extent of the base of the skull, and the destruction of so many of the cranial nerves, the patient should have lived, and presenting such fair prospects, for a time, of ultimate recovery. The results obtained from the injections of atropine are in accordance with those of experiments upon animals. The work of the physiologist has rendered it almost certain (see H. C. Wood's "Therapeutics," p. 220) that when atropia is given internally the iris is dilated, not by an action exerted upon the nervous centres, but by a direct influence upon the iris itself, to which the blood carries the alkaloid. In the present instance all the connections of the iris with the nerve-centres were involved, yet atropia, given hypodermically, dilated the pupil,—not so quickly, it is true, as it did that of the uninjured eye, but yet very decidedly. It must be remembered that the accident which severed the nerves of the eye also in great measure cut off the blood-supply of the organ, only barely enough blood finding its way into it to maintain its life. The sound eye, therefore, received a much larger dose of the poison, which was dissolved in the blood, and, of course, manifested more rapidly its influence.

REPORT OF CLINICAL CASES OF DISEASES OF THE EAR, THE CHIEF SYMPTOMS OF WHICH WERE "TINNITUS AURIUM," OR NOISES IN THE EARS.

ILLUSTRATIVE OF A PAPER PUBLISHED IN THE "PHILADELPHIA MEDICAL TIMES," JUNE 27, 1874.

BY LAURENCE TURNBULL, M.D.,

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CASE I.—Tinnitus. The sounds resembling the action of a pump and the hissing of a snake, the result of impacted cerumen and the excessive use of tobacco.

Henry L., aged 30, residence Philadelphia, occupation painter, complained of deafness, with sounds like the hissing of a snake and the action of a pump. The patient uses tobacco to excess, both smoking and chewing. He is so deaf in the right ear that a loud-ticking watch is only heard in close contact. Left ear almost normal in hearing. On examination of right ear the meatus is found covered with patches of altered cerumen, while the membrana tympani is entirely covered with a concave mass, as if melted by heat. There is not much doubt that by its pressure it first displaced and caused absorption of the air in the middle ear, driving the malleus inwards and pressing the stapes into the fenestra ovalis. Directed a warm solution of biborate of soda, in equal parts of glycerin and water, to be dropped into the meatus warm for three nights,

and on the morning of the fourth day the parts were washed out by means of the syringe. This procedure did not give entire relief until fresh warm air was blown in by Politzer's apparatus, when the concave membrane assumed its normal character, and the deafness and sound disappeared.

Case II.—Fluttering tinnitus with deafness of one side since June, 1873; the result of bathing. Treatment for two weeks with almost entire relief.

Oliver W. L., aged 14, student, Berks county, Pa., sent by Dr. E. B. Shapleigh, of Philadelphia. General health good, pulse rapid, no valvular murmur, no enlargement of heart; has constant fluttering noise in left ear; never free, night or day. Mother deaf in both ears, from cold; no other member of the family deaf. Deafness and noises commenced in June, 1873; no discharge, no pain. Left ear—hearing-distance, $\frac{4}{36}$; right, $\frac{20}{36}$. No disease of auditory canal or membrana tympani. Right Eustachian tube open and free; left contained inspissated mucus. The naso-pharyngeal mucous membrane swollen, and considerable discharge from it. Treatment prior to coming under the writer's care, washing out ear, applying counter-irritation, oils, etc., but with no benefit. Treatment first two days, inflated the middle ear; slight relief. Finding the mucus tough and somewhat dry, resorted to Lucca's plan of injecting a few drops of a solution of chloral hydrate (10 to 30 grains) to f℥j of tepid water into the middle ear by means of the Eustachian catheter. This was disagreeable, but not painful; after ten applications, as the results did not afford permanent relief, omitted it, and employed the nasal douche with warm solution of common salt, alternated with solution of zinci sulphas in water, to wash out any accumulation in the naso-pharyngeal space. This relieved him, but only temporarily, and was continued for four days, followed by the use of the galvano-magnetic current, applied by the author's modification of the rheophore of Duchenne. The insulated conductor was passed near to the membrana tympani through a warm solution of chloride of sodium. This gave him considerable pain, but entire relief from the noises, with improved hearing in the left ear, so that he was able to resume his studies.

Case III.—Tinnitus the result of chronic catarrh, with depressed membrana tympani (deafness).

H. G. H., aged 40, native of Pennsylvania; merchant, doing business in Philadelphia; has suffered from constant noises in the left ear, with deafness to low sounds, for years. General health impaired, loss of appetite, and much depression. Applied to the writer December 25, 1873, being recommended by Dr. Levis of this city.

History: frequent attacks of cold in the head; employed tobacco, and had all the symptoms of follicular pharyngitis, with nasal catarrh, using a number of handkerchiefs each day, and expectorating disgusting masses of altered mucus, which was hardened, and in some instances tinged with blood. The left Eustachian tube was narrowed and diminished in its power of opening during deglutition, and the hearing in the left ear to $\frac{18}{36}$; in the right the hearing was $\frac{14}{36}$, and the tube more free. In the right membrana tympani there was sub-acute inflammation, and handle of malleus injected, with short process very prominent and membrane sunken. Left, no symptoms of inflammation, but deeply-sunken membrane.

Prior to his coming under the writer's care, this gentleman had been under the treatment of almost every quack in this city, and had spent a large sum of money without benefit. He had also been treated by a number of able medical gentlemen, regular members of the profession.

The treatment of the throat, pharynx, etc., was continued until the patient ceased to have the constant discharge. The sunken membrana tympani was elevated by means of Siegle's aural speculum, and the middle ear was medicated with various solutions, restoring it to a more healthy condition. It was still found that the sounds were moderated, but no definite change in the "tinnitus."

May 8, 1874, performed tenotomy of the tensor tympani after Weber's method, and placed the patient on the use of a mixture of spiritus terebinthinæ; this was followed by no great change in the sounds. On the 12th, injected through the opening, which had not closed, a warm solution of sulphate of zinc, gr. iij to f℥i of water. This was done by fitting the nozzle of the syringe to the meatus by means of an extra india-rubber packing. The syringe was very carefully and gradually employed, until the fluid passed by the nostril. This was followed by a dull, heavy pain, and the patient felt faint; relieved by the application of the air-douche, one-fourth grain of morphia by the mouth, and the inhalation of chloroform. He complained also of a crackling like the breaking of bubbles of air; still no permanent relief of the noises, which he likened to those of a boiling tea-kettle.

Faradization was then tried; for several weeks he had the fly-like noise in the ear, but when the application was withdrawn he was no better.

Having tried all the ordinary means of relief, and the throat being improved, middle ear free, membrana tympani raised, I placed the patient upon a supporting and stimulating treatment for his brain, by the use of diluted phosphoric acid, with iron, with decided benefit, while I simply kept the orifice of the Eustachian tube free from mucus by the posterior nasal syringe and solution of common salt. To correct the fulness of his head and constipation, I directed Oak Orchard salts, a mild saline aperient. This latter treatment he has been under, and he feels freer from the noises, is in better spirits, and is now able to say that he feels better than he has felt for years.

During my absence this summer, 1874, he visited my friend Dr. Cohen by my request, who tried the constant current with much the same results as those obtained by faradization, so that he fell back upon the same treatment under which I had placed him.

Case IV.—Tinnitus the result of collapse of the Eustachian tube, without deafness.

B. N. B., M.D., aged 34 years, residence Philadelphia, applied April 7, 1874, to the writer, suffering with a buzzing noise in the right ear. This was of four months' duration, and the blowing sound increasing as if into a bottle. It disturbed his sleep, and he was unable to perform his duties with comfort or satisfaction. He had consulted four physicians, and, having some sore throat, all the remedies were applied to it.

On examination, found the hearing of both sides normal, membrana tympani of the right slightly drawn inwards, but no prominence of the handle of the malleus, with no opacity of the membrana tympani. The left Eustachian tube was free, and air passed into the middle ear without any difficulty. The right was found obstructed in the pharyngeal orifice, which the writer endeavored to overcome by the use of the air-douche and Eustachian catheter, which were followed by slight improvement. A few days after, a Eustachian bougie was introduced by the aid of the rhinoscopic mirror, and an application made to the orifice of the tube, of equal parts of diluted carbolic acid and tincture of iodine. This treatment was continued, and removed every trace of the noises. The bougie was a metallic one, acutely curved, introduced by the mouth, and its use was to stimulate the mucous membrane

lining the tube, and thus remove the collapse and swelling. This bougie was introduced only into the wide portion of the tube. These bougies are employed from No. 2 to No. 5 of the French scale, and it is well to remember that the distance from the widest portion of the mouth to the isthmus or narrowest part of the tube is seventy-four millimetres, and the distance from the point to the tympanic cavity eleven millimetres, and the width of the cavity thirteen millimetres.

Another case of much the same character came under the writer's notice, but the results were not so satisfactory, owing to the length of time which elapsed before the patient applied for relief. It was as follows:

Case V.—Isabella V., aged 25, resident of Philadelphia, a lady of education, and very intelligent, applied May, 1874, stating that she was suffering with a constant buzzing sound without deafness; thought it was due to the result of a very severe cold; no pain. On examination of the offending ear, which was the right, found her hearing was $\frac{10}{30}$ left, right $\frac{14}{30}$, showing an amount of deafness by the watch which was not noticed in hearing the human voice. In the right meatus there was an excess of cerumen, the removal of which improved that ear to $\frac{28}{30}$. The right membrana tympani was found normal. Left membrana tympani sunken, and Eustachian tube of left side closed by a dark mass when it was examined by the rhinoscopic mirror. This was removed by the nasal douche, and the iodine and carbolic acid applied to the ulcer which was found under it. A strong solution of common salt alternating with a solution of sulphate of zinc was then directed to be employed at home.

May 22.—Returned and expressed her thanks for the relief afforded; she was so much improved as to be able to sleep, and was almost free from the tinnitus unless much excited. She had been under the care of an aural surgeon of this city for three months, who had employed a large Politzer's air-douche at each visit, and the application of the constant current to the ears, which, she stated, instead of improving her had only increased her distress.

(To be continued.)

NOTES OF HOSPITAL PRACTICE.

ST. MARY'S HOSPITAL.

SERVICE OF DR. J. EWING MEARS.

COMPOUND COMMINUTED FRACTURE OF THE SKULL, INVOLVING BOTH TABLES, WITH DEPRESSION.

WILLIAM McD., æt. 14, was admitted into the surgical wards of the hospital, August 19, suffering from a wound of the cranium. It was stated that he had sustained the injury at Cramp's shipyard; an iron clamp or dog weighing fourteen pounds falling a distance of thirty feet, his head being struck by the angle of the tool. He was stunned by the blow, but soon regained consciousness, and when admitted he was able to give an account of the injury. Examination revealed a lacerated wound of the scalp over the frontal bone, about one inch from the line indicating the position of the frontal suture. On separating the flaps the bone was found depressed to the extent of half an inch, and the external table was very much comminuted. Nausea and vomiting were present, the pupils were largely dilated, the pulse slow and full, and respiration was somewhat labored.

Although the symptoms of compression were not strongly marked, Dr. Mears deemed it advisable, in view of the character of the wound, to remove the fragments of bone, and thus avoid the possible dangers of subsequent compression or the occurrence of intracranial suppuration.

Owing to the size of the wound of the bone, it was impossible to apply the trephine. After enlarging the wound of the scalp by incisions, the elevator was applied, and the comminuted portions of the outer table, some eighteen in number, were detached. After removing these it was found that the inner table had been pushed off, as it were, *en masse*, leaving a loose fragment much larger in diameter than the opening in the outer table. This fragment, after numerous attempts, was sufficiently dislodged (being pushed aside) to admit of its division by the bone-pliers. The portions were then readily extracted, and the dura mater brought into view; with the exception of a wound of one of the small arteries of this membrane, the hemorrhage from which was easily checked, it was uninjured. The wound was well cleansed by gently injecting cold water, and the incisions in the scalp were closed by wire sutures. The wound was strapped with isinglass-plaster, and covered by compresses wet with ice-water. The head was kept elevated; as soon as the patient recovered from the effects of the anæsthetics, a drop of croton oil was administered. This failing to produce any effect, eight grains of calomel were given, which soon opened the bowels freely. Instructions were given to keep him perfectly quiet, and to continue cold applications to the head; one grain of calomel three times daily was administered. Sloughing of the portion of lacerated scalp occurred, and the dead tissue was removed by the scissors. Healthy suppuration soon took place, and the wound was rapidly filled by granulations.

September 17.—The wound is closed, with the exception of a slight surface about the size of the nail of the little finger. A large depression is left on the surface. The recovery of the patient has been uninterrupted.

Remarks.—At first view this wound appeared to partake largely of the character of an *impacted* fracture, and, as such, it was a question not readily decided as to the propriety of operative interference. The symptoms of compression also, as has been stated, were not strongly marked.

The depressed character of the wound produced apprehensions as to the subsequent effects, and seemed to justify the removal of the fragments. The fact that the inner table was found to be detached to so large an extent, and that there existed a wound of one of the vessels of the dura mater which poured out a quantity of blood, fully confirmed the propriety of removing the bone. The measurements of the fragment from the inner table were found to be in the long diameter two inches, in the short diameter $1\frac{5}{8}$ inches; of the external plate in the long diameter $1\frac{3}{4}$ inches, in the short diameter $1\frac{1}{4}$ inches.

The fracture involved the frontal bone, situated about one inch from the line indicating the position of the obliterated frontal suture, and was limited behind by the coronal suture.

EXTENSIVE WOUND OF THE SKULL, PRODUCED BY A CIRCULAR SAW.

A. B., æt. 18, was admitted August 21, with an extensive wound of the skull, which was produced in the following way. The patient was engaged in collecting saw-dust in a basket, and for this purpose had crawled under a bench connected with which was a circular saw. The attendant, unaware of the presence of the man beneath the bench, suddenly set the saw in motion, which struck his head; the saw entered first at the junction of the middle and outer third of the right supra-orbital ridge, cutting obliquely across the vertex through the coronal suture, the right parietal bone, the sagittal suture, and terminating in the left parietal bone, about one inch from the sagittal suture. The length of

the wound made by the saw was seven and three-quarter inches, the width one-third of an inch; the depth of the wound through bone and in the brain-substance was four inches, according to the most accurate measurements which could be made in the absence of a post-mortem examination, which was not permitted. The edges of the wound in the bone were rough and uneven, and the brain-substance appeared to be somewhat lacerated by the large teeth of the saw. At the time of admission—three-quarters of an hour after the receipt of the injury—the patient was conscious, and struggled violently with those who had him in charge. Profuse hemorrhage had occurred, and continued after his admission. He complained of severe pain in his head, on the side of the wound, and desired to lie on that side. There was no paralysis and no convulsive movements. He died about an hour after admission, from exhaustion. As above stated, no post-mortem examination was permitted, by which alone could have been determined the exact extent of injury to the brain. The absence of any marked symptoms indicating lesion of the nerve-centres would imply that the saw passed only through the cortical substance of the brain. Neither the special senses, common sensation, nor motion were impaired. The patient appeared acutely sensible of the severe pain caused by the wound. The active movements made by the patient were in decided contrast to the symptoms usually manifested in cases of traumatic lesions of the brain, and attracted attention.

TRANSLATIONS.

A Peculiar Affection of the Fingers (Dr. Arthur Menzel: *Centralblatt für Chirurgie*, No. 22, 1874).—A peculiar, incomplete stiffness of the fingers was described by Notha and Nélaton, in which the fingers, in other respects normal, resisted for some time all attempts to flex or extend them, and then suddenly yielded, their motion being attended by pain and a snapping sound like that caused by closing the blade of a pocket-knife. Nélaton thought that this affection was caused by the existence of a hard, round, movable body, of the size of a lentil, in the flexor tendons. When an attempt was made to flex the finger, the rolling body met with a resistance from the fibrous bands which strengthen the sheaths of the tendons; but if the effort was continued, and force enough used, the body forced its way through these bands and sprang forward upon the other side of them. W. Busch (Handbuch der Chirurgie) has observed two cases of this affection, but was unable to discover anything abnormal either in the joints or in the sheaths of the tendons. Prof. Pitka (Pitka-Billroth Chirur.) has no acquaintance with cases of this kind from personal observation, but thinks that the most probable explanation is that they are due to a movable cartilage in the joint. Hyrtl also has never seen a case, but thinks "that, on theoretical grounds, this curious condition can only be due to a circumscribed thickening on one or the other of the flexor tendons, with a simultaneous limited contraction of a certain portion of the sheath of the tendon." Finally, Dr. Hahn has described an interesting case in which the affection was symmetrical, both ring-fingers being involved. In this case the first interphalangeal articulation of both ring-fingers cracked, while the most painful points were found to be on the flexor aspect of the fingers corresponding to the metacarpo-phalangeal articulations, and from the flexor tendon at this point there could be felt a rather hard, immovable projection which was especially painful.

Dr. Menzel adds to those already recorded the history of one more case, which he considers interesting in itself, and which he hopes may facilitate the explanation of the cause of this singular phenomenon.

M. F., aged 42, a woman whose occupation was embroidering, suffered during the past winter from rheumatic pains in the lower extremities. On the 16th of May of this year, while she was at her work, she suddenly had such a severe pain in the metacarpo-phalangeal articulation of the right thumb that she was forced to cry out. She thought that she had thrust a needle or a thorn into her flesh, but, by a careful examination, satisfied herself that this had not been the case. From this time the pain was never entirely absent, either by day or by night. After the expiration of two weeks she first noticed the cracking of the thumb upon flexion, and sometimes she was not able to bend it at all. When Dr. M. first examined the case, on the 16th of July, he found the following: As soon as the last phalanx of the right thumb was bent to an angle of one hundred and fifty degrees, a resistance was experienced, but if flexion was continued with a moderate increase of force, the last phalanx suddenly sprang, with a moderate crack, to an angle of ninety degrees with the first phalanx. The same phenomena were noticed when the finger was extended from the flexed position, and they occurred whether the motions were of an active or passive character. Both the patient and those who examined her placed the springing and cracking in the interphalangeal articulation, but the most careful examination failed to discover anything abnormal in this joint. On the other hand, a point was found upon the flexor tendon corresponding to the metacarpo-phalangeal articulation which was extremely painful upon pressure, and upon the ulnar side of this same point was a hard, immovable body of the size of a lentil, which seemed to be the source whence all the pain started. On the corresponding part of the thumb of the other hand there was a projection similar in all respects to the one upon the right side except in the entire absence of pain.

This case is worthy of special observation, since the affection was apparently situated in the interphalangeal articulation, while the excessive pain on the volar aspect of the metacarpo-phalangeal joint rendered it highly probable that the cause of the singular condition was some change in the tendon and its sheath. Dr. M. and his assistant then made some experiments upon the cadaver in an endeavor to ascertain if a tumor in the tendon due to thickening would be sufficient to cause these phenomena in a finger. Since the tendinous sheaths are provided with numerous tense, fibrous bands in order to strengthen them, it might be possible that the sudden overcoming of such bands by a tumor in the tendon would occasion the springing of the finger. The tendon of the flexor profundus was exposed and raised, and a string was tied tightly around it from two to four times. These repeated turns of the thread made a projection which represented a small circumscribed tumor of the tendon. The tendon was then replaced in its sheath, and flexion was made either by force applied to the finger itself or by traction exercised on the tendon over the wrist. The motions of the finger thus prepared were not so free as those which were uninjured, but nothing approaching the condition described as existing in the patient was obtained. This first occurred when, in addition to the tumor of the tendon, the resistance of its sheath at an appropriate place was considerably increased or diminished. In order to increase this resistance, an artificial constriction of the sheath was effected by a ligature firmly applied. The movement of the finger was now perfect until the tumor of the tendon reached the constricted portion of the sheath, when there was a cessation of

motion. If now the force was somewhat increased, the finger suddenly sprang into the wished-for position, and this movement was attended by a snap. The sensation which was transmitted to the operator gave the idea that the lesion was within the joint; indeed, the whole process was similar in every respect to that which took place in the patient and of which an account has just been given. Instead of making the constriction directly in the sheath, an experiment was tried with the constricting band around the uninjured skin of the finger; but this was not successful, for the tumor on the tendon passed through without causing the sudden spring of the phalanx which is so characteristic of the affection under discussion. If a small piece of the sheath of the tendon was removed, so that its power of resistance was diminished, the same phenomena were caused as when a constricting band was placed about the sheath. If the artificial tumor on the tendon was relatively large, more force was needed to force it through the sheath. If now the application of this force suddenly ceased, the tumor sprang to some distance, while there was an impression conveyed to the finger that the operation had taken place within the interphalangeal joint.

In order to test the truth of the theory of Nélaton in regard to the cause of this affection of the fingers, small grains of various kinds were introduced into the sheath and, by means of a fine probe, thrust forward some distance. These bodies most commonly arranged themselves on either side of the tendon, took but little if any part in its motions, and never gave rise to the condition of affairs which is under consideration. Dr. M. thinks that he can justly draw the following conclusions:

1. It is possible that the springing of the finger may be always due to an affection of the tendinous sheath; the observer, however, receives the phenomena as attributable to some condition of the joint.

2. Neither a tumor in the sinew nor a constriction of the sheath of the tendon of itself suffices for the production of the condition; both these conjoined are required.

3. The springing occurs also when, in addition to a tumor of the sinew, there is a tear of the sheath at a corresponding point.

4. Free bodies in the tendon will not produce this effect even when there is also constriction of the sheath; the tumor must be a part of the tendon itself. It is probable that the enlargement in the tendon and the constriction of its sheath are both the products of inflammation. In regard to the case detailed above, it can be stated that the peculiar condition disappeared in a few days by the use of tincture of iodine and warm baths; but motion remains painful, and the thumb cannot yet be used. It seemed to be of importance to ascertain the nature of the disease, and if it can be shown to be due to inflammatory deposits from a circumscribed chronic tendovaginitis, it will be no matter for wonder that the course of the affection is very tedious. The hard, oval, painful body at the side of the tendon opposite the metacarpo-phalangeal articulation corresponds to the free edge of the bony groove in the first phalanx of the thumb, in which lies the flexor tendon. Both of these edges, as a rule, are rather more projecting at this point. Between these bony edges a dense oblique projection is formed by the attachment of the capsular ligament of the metacarpo-phalangeal joint. It may be that this position, on account of the depth of the groove and the oblique projection of the attachment of the ligament, is especially predisposed to be the seat of contraction of the sheaths of the flexor tendons. W. A.

THE DIURETIC ACTION OF DIGITALIS (Brunton and Power: *Centralblatt für die Med. Wissenschaften*, 1874, No. 32).—Max. Hermann and Ludwig have shown that the rapidity with which the urine is secreted depends upon the difference between the pressure of the blood in the renal glomerules and that of the urine in the uriniferous tubules. At present it is supposed that the diuretic action of digitalis is not due to any specific property which it possesses, but to the power which it has of increasing the blood-pressure in the arterial system. The results of experiments which these observers made about a year ago show that this is not the case. After the injection of a considerable dose of digitalin into the veins of a dog into whose bladder a catheter had been introduced, the secretion was either suppressed or at least considerably diminished, while the blood-pressure was simultaneously increased. Some time later, the pressure fell, and in some of the experiments the secretion of urine reappeared with the sinking of the blood-pressure, while in others no reappearance of the secretion took place until the pressure had become less than normal. In some cases the urine flowed more rapidly than in others, although the pressure was much below the normal standard. If the diuretic effect of digitalis is due entirely to the power which it has of increasing the blood-pressure, the flow of urine ought to be much increased immediately after the injection, and should also be diminished as the pressure falls. Instead of this, it was found that the secretion was least when the pressure was highest and became more plenteous when the blood-pressure had become less than normal. In explanation of these conditions it seems reasonable to suppose that digitalis has an irritative action upon the vaso-motor nervous system, and that its action in that respect is especially well marked upon the vaso-motor nerves of the kidney. It must at the same time be supposed that it gives rise to a moderate contraction of the vessels of the general circulation, and an increase of the blood-pressure in them, while in the kidneys it causes a higher degree of contraction of the arteries, in consequence of which there is an immediate cessation of the flow of the urine. As the irritant action on the vaso-motor nerves becomes less, and finally passes away, the renal vessels become flaccid more quickly and more completely than the others, so that the blood-pressure in the renal glomerules is still above its normal amount, although the tension of the vessels of the general circulation is below its average quantity. This supposition is further supported by the fact that the urine which is collected after the reappearance of the secretion contains albumen. This substance was found by Hermann after the circulation in the renal arteries was obstructed. The possibility that the variations of the secretion are partially dependent upon the direct influence of the medicine on the secreting elements of the kidney must not be overlooked, and these same experimenters are now investigating this point, and will in due time publish the results of their work. W. A.

EXPERIMENTS ON WHITE MICE WITH CHOLERA DEJECTIONS.—H. Ranke (*Bayerisch. Aertz. Intelligenz-Blatt*, 1874, No. 15) has repeated the experiments upon white mice with cholera dejections which were made by Thiersch twenty years ago. The earlier experiments were made by giving the animals infected paper, but in those of Ranke the dejections of cholera were mixed with milk which was then given to the mice. In two series of experiments he attained negative results. In accordance with the advice of V. Pettenkofer, he repeated the experiments in the dead-house of a hospital which contained cholera-patients, but here too the animals remained free from infection. When the mice were fed with uninfected filtering-paper, smeared with fat, they died without any apparent cause, and in their intestines were found gray, pulpy masses. W. A.

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

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PUBLISHED EVERY SATURDAY BY
J. B. LIPPINCOTT & CO.,
715 and 717 Market St., Philadelphia, and 25 Bond St., New York.

SATURDAY, OCTOBER 3, 1874.

EDITORIAL.

DR. HAMMOND'S DEFENCE.

DR. HAMMOND has published, in the *New York Medical Journal* for September, a very elaborate defence of his action in regard to the McCormick case. The line of defence is that there are certain subjects connected with medicine in which the public are especially interested, and upon which they desire information; and, further, that men of excellent standing in the New York and even in the Philadelphia profession have frequently gratified this desire of the laity for knowledge.

All of this is true, and certainly Dr. Hammond clears himself of any imputation of being a pioneer in this business. But we think it will hardly be judged otherwise than that he has gone farther than his predecessors, and has approached more closely the "dead-line" that separates quackery from regular medicine. Offence may be given by the manner as well as the matter of the doing, and it is difficult to conceive of anything more sensational than was the flurry about hydrophobia.

A revolution in professional ethics, as we have stated before this, seems to us imminent, simply from the fact that there is an inevitable tendency for each individual to step a little in front of his fellows and so to widen steadily the distance between the old and the present customs.

The splendid pecuniary success which Dr. Hammond claims to have attained, and of which he shows many tangible proofs, undoubtedly tempts men to follow his methods, and exerts an enormous influence,—an influence which must be considered in at least some respects baneful by all those who revere the traditions of the fathers. We ourselves are tempted to believe that it would be fairer to the more scrupulous of the profession to abolish the Code of Ethics entirely than to let things drift as at present, and thus allow the use of well-tried business methods for success to those who are reckless of any professional public opinion which has not a dollars-and-cents value. As showing how the current is setting, we may mention the insertion, a few weeks since, by a "quiz organization" of a prominent medical college, of an advertisement in one of the evening penny papers. It was at a time when scarcely a student was in town, and the advertisement was in a paper that very few students *in* the city, certainly none *out* of it, see, and therefore could not possibly have availed in obtaining any students for the coming winter session. But then the names of the quizzers were in displayed type, each with his specialty set forth, and were scattered over the city among the very classes of the laity to be reached by such means. The kernel of the nut is not, we think, hard to discover. Even the defence of Dr. Hammond may serve as a sign-post of the times, if indeed it could with truth be granted that he has only done as do his professional brethren. How different in tone from Dr. Hammond's defence—which says in substance, "I allowed it; I furnished the wood-cuts to the newspapers; but the rest of you do the same thing"—is the recent indignant disavowal by Prof. Paget of any collusion with the publication of one of his lectures in the *Pictorial World!*—a disavowal in which he declares that he did all he could to prevent the publication, and adds, "I venture to hope that I am not thought likely to be guilty of encouraging the appearance of my name in newspapers."

Is further comment needed? Will libel suits and indulging in the school-boy wit of calling editors names render the difference between these two courses less apparent?

As most of our readers probably know, Dr. Hammond has sued the *New York Medical Record* for a libel, said to be contained in its editorial on the McCormick case. Of all the various public acts of Dr. Hammond during his eventful career of surgeon-general, physiologist, novelist, journalist, medical expert, professor, and practitioner, we know of none, not even the famous anti-calomel or tartar-emetic order, which is more novel, or to our thinking more uncalled for and injudicious. If professional men are not to be criticised as well as lauded for their public acts, praise when given is of no value, and medical editors had better abandon their vocation.

The editorial complained of was, under the circumstances, not very severe. The facts set forth, with one exception, seem to be established by the evidence contained in the last issue of the *Record;* and, finally, the editor of that journal offered the use of its columns to Dr. Hammond, and has done everything he could, consistently with proper self-respect, to deal fairly with the subject. What Dr. Hammond has to gain by an appeal to court it is very hard to perceive. He certainly cannot believe public professional opinion will be influenced by the decision of the jury; and, if there be any justice, no money damages will ever in this case "salve the wound that honor feels." It is but a step from the sublime to the ridiculous, and certainly the verge of the height seems to be crumbling under Dr. Hammond's feet.

According to the London *Lancet,* Sir Cordy Burrows, one of the directors of the Brighton Aquarium, entertained at luncheon Mr. George Somes, Mr. Henry Lee, F.L.S., and Lieutenant-Colonel Chichester, when the *pièce de rèsistance* was boiled octopus. It was pronounced to be very palatable, resembling boiled lobster and skate.

The cuttle-fish is used as food in various parts of the world, notably in China. It is too rare upon our coast to be of any economic value. Probably other sea-monsters might be of value. We have by way of experiment eaten, in small quantity, the transparent jelly of the ordinary jelly-fish as raw oysters are eaten, and found it not unpalatable.

CORRESPONDENCE.

Philadelphia, September 21, 1874.

To the Editor of the Philadelphia Medical Times:

DEAR SIR,—I have been for some months past making a new use of chloral hydrate,—viz., that of a preservative for hypodermic injection solutions, and so far have been satisfied with its reliability and safety.

Having experienced both the inconveniences of dissolving morphine or other alkaloid powders extemporaneously, and the vexing delays which will occur at night in waiting for the compounding of prescriptions, I feel that the annexed suggestion will assist those who wish to possess a *reliable* means at the *needed* moment, securing certainty and saving time.

My formula is—take of hydrate of chloral, two grains; diluted acetic acid, two drops; distilled water, four drachms (fluid).

In this menstruum any *alkaloid* usually employed (or any other of the materia medica which may be liable to decomposition) may be dissolved or suspended in the proportion customary with each practitioner.

I have experimented with the alkaloids morphia, atropia, and strychnia, also bromide of potassium, and in varying proportions. The solutions have kept free from *visible* alteration for several weeks, and their effect after this time was as certain as when recently compounded. A slight musk-like odor is developed in a few days, but the clearness of the solution is in no wise impaired.

Respectfully,

W. Macpherson, M.D.

RESECTION OF THE LOWER JAW, LEAVING RIM OF SUPPORT.

To the Editor of the Philadelphia Medical Times:

THROUGH the kindness of the editor of the *Dental Cosmos* I send you cuts which exhibit a case operated on by myself some five months back, in which the cure became perfect without any necrosis of a very delicate rim left, and under a constitutional condition which renders a notice of it valuable to a class of practitioners who have occasion, like myself, to be informed of precedents in such direction.

The patient, a Miss C., 17 years of age, of exceedingly delicate organization and of *decidedly strumous* tendency, required operation on account of a cysto-sarcoid tumor, which extended from the first molar tooth of the left side to the first bicuspid of the right, and which involved the body of the jaw to a depth extending midway between the dental canal and the base of the bone. Exposing the parts, as shown by the cut, with the expectation of a necessity for the full section of the bone, it was determined (seeing that the tumor might be removed and yet a rim left) to risk a return of the disease and the probability of necrosis, together with the possibility for a second operation, rather than produce, without an assured absolute necessity, the hideous deformity consequent on the complete section.

The precedent of interest in the case lies in the fact that here is another instance in which the inferior dental vessels have been removed, and a long span of bone survives, and this under most adverse constitutional condition. The patient is now perfectly

well, and is without greater deformity than is seen in any person who has lost the lower teeth. The chin, of course, and the articulation of the remaining teeth have their normal relations preserved, while even the lost parts are capable of being perfectly represented in an artificial denture which I shall shortly prepare for her.

J. E. GARRETSON, M.D.

ALEXANDRIA, VIRGINIA, September 22, 1874.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

IN an interesting letter from Dr. R. J. Levis, dated Norwich, England, giving a condensed report of the proceedings of the British Medical Association, the remarks of Dr. Marion Sims are given relative to the question of chloroform-narcosis and resuscitation therefrom. In this statement the opinions of Drs. Campbell, of Paris, Schuppert, and Holmes, of the United States, are quoted in favor of the view that this state is really due to anæmia of the brain.

As this is a question which claimed much of my thought and attention some years since, with a view of furnishing additional evidence in favor of that belief, I deem it not inappropriate here to refer to a most interesting case published by myself in 1860, bearing on this very subject, and, so far as I am aware, the only one on record which proves by actual ocular demonstration the truth of this opinion almost beyond a doubt. This was a case of extensive fracture of the cranium, in which a large portion of the os frontis, measuring at least three by one and a half inches, was driven into the anterior lobes of the brain by the kick of a powerful horse. The bone was crushed into ten or fifteen pieces, and imbedded into the substance of the brain, portions of which were forced out. It was a frightful opening in the skull. The patient, a boy, was perfectly conscious, and so rebellious that it became necessary to resort to chloroform to induce quiet during the tedious operation of removing the bones. Perfect consciousness and mental intelligence were remarkable features in the case. Indeed, the patient stated that from the moment of receiving the injury the memory was unbroken and complete of every circumstance. This case was attended by myself, then residing in the town of Yanceyville, North Carolina, and published in the October number of the *American Journal of the Medical Sciences*, 1860.

During the protracted operation, the patient was placed under the influence of chloroform three or four different times. As the anterior lobes of the brain were fully exposed to view and were terribly lacerated, every opportunity was offered to witness the conduct of the organ under the action of the anæsthetic, and again while free from it. These demonstrations were of an exceedingly interesting character, and, in my own opinion, establish absolutely the fact that cerebral anæmia is the inevitable result of the action of chloroform, and that death, apart from organic disease of the heart, is due alone to this condition of the brain.

The following quotation from the article alluded to is given for the purpose of showing the action of chloroform on the physical operations of the brain. I am not aware that any similar occasion has ever been offered wherein the phenomena of anæsthetic action on the physical changes in the brain were so completely exposed to investigation.

"Our preconceived ideas in regard to the specific action of anæsthetics would very naturally deter us from their use in this kind of case. Their effects in this instance on the brain, at least so far as the circulation is concerned, were perfectly manifest. Here a large portion of the surface of that organ was exposed to view, and any physical change in the brain produced by the agency of the anæsthetic could be easily observed. Considering the various speculations in regard to this influence, the effects in this case were highly interesting. Hemorrhage, which had been free previously, ceased almost entirely after the full anæsthetic impression had been made. It is conceived by the profession that under the impression of chloroform the actual vascularity of the brain is increased; that absolute congestion takes place. The present case afforded an ample opportunity to determine this question definitively. Whenever the anæsthetic influence began to subside, the surface of the brain presented a florid and injected appearance. The hemorrhage increased, and the force of the cerebral pulsations became much greater. At these times, so great was the heaving and bulging of the brain that we were compelled to suspend operations until they were quieted by a repetition of the anæsthetic. Then the pulsations would diminish, the cerebral surface recede within the opening of the skull as if by collapse, the organ becoming pale and shrunken with a cessation of the bleeding. In fact, we were convinced that diminished vascularity of the brain was an invariable result of the action of chloroform.

"The changes above referred to recurred sufficiently often during the progress of the operation, in connection with the anæsthetic administration, to satisfy us that there could be no mistake as to cause and effect.

"Again, these changes began invariably to appear with the earliest influence of the agent. As consciousness diminished, in a corresponding ratio there was diminution of vascularity of the brain; and as the mental powers would return, the contrary would occur."

The subject of this injury, though having sustained the loss of a considerable portion of the anterior lobes of the brain, was still living after the war; his intellect never having been impaired for a moment from the reception of the injury.

Respectfully,

BEDFORD BROWN, M.D.

SULPHATE OF ZINC IN RHUS-POISONING.—Dr. Charles H. Humphreys, of Ohio (*Am. Med. Journal*), extols a strong solution of sulphate of zinc as a curative of rhus-poisoning: a half-ounce or more to a pint of water, applied every hour, by means of a sponge.

SELECTIONS.

THE PLAGUE IN MESOPOTAMIA AND NORTHERN AFRICA.

THE reappearance of plague in Mesopotamia and Northern Africa is a fact of peculiar interest, even if regarded solely from the historical associations of the malady. The locality of reappearance in Mesopotamia is contiguous to the scene of the outbreak of 1867; the locality of reappearance in Northern Africa was the scene of the outbreak of 1858. Plague is believed to have disappeared from Egypt in 1844, and it is not known to have existed in Northern Africa from that date to 1858. In the last-named year the disease broke out in the regency of Tripoli, at Bengazi, the ancient Berenice, and spread over that portion of the district of Barca which was known among the ancients as Cyrenaica. Mesopotamia had been free from plague upwards of thirty years (no certain case had been known since 1834) when, in 1867, the disease appeared, and spread to some extent among the Arab tribes inhabiting the marshy district which lies west of the Euphrates, between the ruins of Babylon and the great shrine of Shiite pilgrimage, Nedjef (Meshed Ali).

The present appearance of plague in Tripoli began at Merjeh some time during the first quarter of the year. Merjeh is situated to the southeast of Bengazi, about twenty hours distant, on the plain of the same name. It is a new town, built on the site of the ancient Barca. When the place was visited by Hamilton in 1856, a fortress, begun a year before, and "several small houses in progress, destined to form the nucleus of a town," alone existed. Now the number of houses is said to be sixty-four, including certain excavations in the rocks, beneath the fortress, used as dwellings, and the general state of squalor seems to rival that of Bengazi, known among the Turks, from its persistent plague of flies, as the "fly kingdom." Thirty cases of plague, twenty-seven of which were fatal, have been verified by a medical commissioner, Dr. Laval, as occurring between the 7th and 21st of June, among a population of about three hundred. On the last-named date, Dr. Laval, unhappily, was himself struck down with the disease, and he died on the 27th.

In 1858 the plague which then prevailed in the district extended to Merjeh. The plain, or, as some term it, the valley, of Merjeh, is an extensive tract of "mingled pasture and cultivation," hemmed in by richly-wooded hills. Although from its extent designated a plain, and from its being surrounded by hills, a valley, yet, say the Beecheys, in their narrative of exploration on the north coast of Africa in 1828, this plain and valley, from its being situated "in the top of a chain of mountains of no inconsiderable elevation, must also be considered as a tract of table-land raised far above the level of the sea." The plain is a favorite resort of the Bedouin tribes in the summer months, from the numerous pools and lakes formed there by the water coming from the neighboring hills. The different travellers who have visited the plain describe it and the district which surrounds it as of great beauty; and those geographers who hold that the gardens of the Hesperides were in the Cyrenaica appear to have much to justify their belief in certain physical characters of the district.

The outbreak of 1858 occurred in the midst of famine, caused by a continuance of drought in several successive years, and the consequent diminution and ultimate destruction of crops and exhaustion of supplies. Famine is not stated to have preceded or accompanied the existing outbreak of plague in Merjeh.

The scene of the present diffusion of plague in Mesopotamia is on the Lower Euphrates, south of Musseyib. The disease first showed itself at the close of February or the beginning of March last among the Affij Arabs, who occupy the northern portion of the great marshes on the east bank of the river. The infection quickly spread to the neighboring tribes, and, attacking both banks of the river, it extended along the stream from Devanieh upwards to Hillah. On the west bank of the stream the infection spread also to Nedjef (Meshed Ali) and Kerbella (Meshed Hussein) to the edge of the desert,—in fact, traversing the district which was the scene of the outbreak of 1867.

Since the commencement of June, plague does not appear to have extended beyond the area described, and there is reason to hope that it is now dying out within it. No clear knowledge exists of the loss of life occasioned by this diffusion, and it is hardly likely that such knowledge will be obtained. The medical commission appointed by the Ottoman government to investigate the diffusion has been able to satisfy itself of the nature of the disease, but has been foiled in its attempts to ascertain the extent of prevalence among certain tribes and in certain localities.

The recurrence of plague among the tribes inhabiting the marshes of the Lower Euphrates, as the recurrence of the malady in the district of Barca, is highly suggestive of inquiry regarding the development of the disease, if it were possible to carry out such an inquiry among the isolated and savage tribes affected. The Affij Arabs, among whom plague first appeared this year on the east bank of the Euphrates, seem to have like habits and like surroundings as the Beni-Taraf Arabs, among whom the disease first appeared on the west bank of the river in the outbreak of 1867. Both tribes live in the marshes, and for a third of the year amid the annual inundation of the Euphrates; both occupy reed-huts covered with matting, and both cultivate and live largely on rice. Mr. Kennett Loftus, who visited the Affij Arabs twice, once in 1849 and again in 1854, describes their "fragile towns" as consisting entirely—

"Of reed huts, the reeds being tied in large bundles and nearly arched overhead. This primitive construction is covered externally with thick matting, impervious to rain. The riches of the Affij are indicated by rows of huge reed cylindrical baskets, containing the grain upon which they subsist. Rice is produced in great abundance along the edges of the marsh; but the whole of their fields were at the time of our visit and for a third of the year entirely under water. Communication is kept up, as on the marshes of Hindieh, by means of long, sharp, pointed terradas, constructed of teak, and measuring twelve or fourteen feet long by a yard in width." (*Chaldæa and Susiana*, p. 91.)

The same writer's description of the Hindieh marshes, on the west bank of the Euphrates (the scene of the outbreak of plague in 1867), as seen from Birs Nimrûd, deserves quotation:

"The view from the summit of the Birs Nimrûd is very extensive, and its utter desolation has been the theme of frequent observation. No one can stand there and survey the scene around without being struck with the literal fulfilment of Isaiah's prophecy,—'I will make it a possession for the bittern, and pools of water; I will sweep it with the besom of destruction, saith the Lord of Hosts.' Spreading out like a vast sea upon the north and west is a marsh, which all the labors of the ancient and modern rulers of the country have never been able to subdue. In certain seasons the waters of the Euphrates rise above their ordinary level and flood the whole surface of the lowlands of Chaldæa, confirming every word of the prophet. Bordering upon this marsh, a few spots attract the eye and relieve the long level of the horizon. Due south stands the little tomb

of the prophet Ezekiel, and at the distance of fifty miles, in the mirage of early morning, may be discerned the mosque of the sainted Ali, glistening like a speck of gold as the beams of the rising sun play upon its surface. Nearer at hand, on the northwest, are the twin domes of Kerbella, the burial-place of Ali's slaughtered sons. The edge and islands of the marsh are at times dotted with encampments of Khuzeyl Arabs, and with the telescope may be distinguished the numerous flocks of sheep and camels, while the hum of busy voices can be distinctly heard a distance of full six miles across the waters." (Page 33.)

About the same time that the outbreak of plague occurred among the Affij Arabs, and the disease appeared in Northern Africa, it was also rumored that plague had shown itself at Revanduz, in Turkish Kurdistan, and in the vicinity of Bana, in Persian Kurdistan. Both places are on the confines of the district which was the scene of the outbreak of 1870. At the close of that year, after an interval of forty years, plague broke out among the villages situated between the rivers Jagatu and Tatawa, southeast of Lake Urumiah. It appeared first in those situated in the swamps, and of which the inhabitants were employed in the cultivation of rice. During the winter the infected villages were cut off from the surrounding country by the snow, and when communication was reopened with them they were found to have been wellnigh depopulated by the disease. As the spring advanced and the roads became free, the inhabitants took to the hills and migrated into neighboring districts, carrying with them the infection, which now quickly spread over a considerable extent of the mountainous region. The inhabitants of this part of Kurdistan escaped the horrors of the famine which prevailed in Persia in 1871, but it is not so certain, as some believe, that the communities first attacked by the plague did not suffer much privation. The outbreak had been preceded by murrain among the cattle and by defective and diseased crops; and it is probable that the populations of the infected villages suffered great straits during the winter of 1870–71.

Famine during the past winter (1873–74) was widely present in Asia Minor, but neither the district of Kurdistan from which the rumor of plague now comes, nor the district which is the scene of the present outbreak on the Lower Euphrates, appears to have suffered, and no report of plague has come from the famine-stricken districts.

It might seem from the recent recurring outbreaks of plague as if the disease were about once more to become a prominent epidemic. The possibility of a reappearance of the disease in an epidemic form has not been overlooked by the different writers on the subject; the subsidence and even apparent extinction of the malady in countries where it was once endemic not being regarded as affording any surety against its recurrence, so long as the sanitary condition of the inhabitants remains unchanged. The limitation of the recent outbreaks to communities removed from ordinary observation, and among whom the first beginnings of the disease could not be traced, suggests that plague, although now more rarely observed in a diffusive form, may not so entirely have disappeared from its former seats of prevalence in the Levant as is commonly believed, and that these recent outbreaks may possibly be recrudescences rather than reappearances. Whichever be the truth, the practical lesson is the same; and Europe, while not regarding these outbreaks with indifference, ought to contemplate them without anxiety. In the present state of medical and sanitary knowledge and practice, plague among European nations should excite no greater emotion, as it does not call for other measures of precaution or treatment, than typhus. In the Turkish dominions in Asia and Africa the case is, however, different. There races and populations, as in the present infected districts, have to be dealt with, among whom the sanitary regulations of a civilized community are impossible. But the sanitary organization of the Turkish Empire seeks to close the different routes by which the infection of plague may travel from an infected locality, and it is now attempting to bring the various centres of Mohammedan pilgrimage in its dominions under systematic medical and sanitary supervision, so as to prevent them becoming as heretofore great *foci* of epidemic diffusion.

As we write, a report has reached this country of the appearance in Western Arabia of a disease resembling plague, and the Egyptian government has put in operation the most stringent measures for isolating the affected districts, and for placing under supervision and subjecting to quarantine arrivals from the Hedjaz in Egyptian ports. It has also decided, according to official report, to cut off all communication with the regency of Tripoli by land and by sea. The locality in which the disease suspected to be plague has shown itself in Western Arabia is Dogar (or Doga), a town built of brushwood and reeds, and lying at the foot of the hills, a day's journey northeast of the fort of Gonfudah. Here the encampment of an Arab tribe has been attacked. If the suspicion that this disease be plague should be confirmed, it is to be feared that the disease will also be found to exist in other parts of Arabia, as a consequence of dissemination from the Lower Euphrates and from Meshed Ali and Kerbella.—*London Medical Record*, Aug. 26, 1874; from the *London Times*, Aug. 17.

GLEANINGS FROM OUR EXCHANGES.

Peculiar Effect of Nitrite of Amyl (*The Practitioner*, September, 1874).—Dr. J. Crichton Browne, while administering nitrite of amyl to a girl who was in the *status epilepticus*, noticed that yawning was produced, and that whenever the inhalation was interrupted the yawning ceased; whenever it was resumed the yawning recommenced. One or two other similar observations, made by himself and his colleagues, induced him to make a series of experiments by administering nitrite of amyl to persons during sleep. Out of fifty-seven cases in which he had avoided waking the patient, in forty-two there were distinct movements of the mouth, consentaneous with flushing of the face. The most common movements were a depression and elevation of the lower jaw, as if in the act of chewing, and a smacking of the lips. Ether was found, as a rule, to merely deepen sleep without producing any movements whatever; ammonia always awoke the patient. It appears, therefore, that nitrite of amyl, when inhaled during a state of unconsciousness, has a specific action upon the motor centres of the mouth, and calls into action, by preference, the muscles of the lips and lower jaw. Whether it performs this action reflexly or through the agency of the vaso-motor apparatus is as yet undecided.

Rest in the Treatment of Phthisis (*The Practitioner*, August, 1874).—Dr. Frederick T. Roberts believes the following to be the only ways in which any mode of rest can be expected to be serviceable in the treatment of phthisis.

1. By keeping the lungs at rest, more or less generally or locally, disease may be prevented, its spread checked, and its cure promoted where it has already developed.

2. Possibly, by diminishing the flow of blood through the lungs, active mischief may be to some extent checked.

3. By looking to the condition of the air inhaled, any irritation from this source may be prevented.

4. Local symptoms may be considerably relieved, and untoward accident, such as rupture of a vessel, averted.

5. General destruction of tissue may be prevented by making but little call on the patient's efforts; and this is a matter of considerable importance in some cases.

POISONING WITH BURNETT'S FLUID (*The British Medical Journal*, September 5, 1874).—Dr. H. M. Tuckwell reports the case of a female, æt. 21, who took about four ounces of Burnett's fluid (solution of chloride of zinc) with suicidal intent. This was followed by burning epigastric pain and tenderness, retching, and vomiting, and inflammation of the soft palate, uvula, tonsils, and pharynx. The lips, mouth, and tongue were unhurt. Life was prolonged for one hundred and sixteen days, during which time the vomiting continued; she had tetanic spasms in the right fore-arm and hand, and grew more and more emaciated until death. The bowels were moved only three times. As the termination approached, she became covered with innumerable petechiæ and vibices, giving the body a bluish mottled appearance. For fifty-seven days life was supported by injections; water only being taken by the mouth.

There were remarkable fatty changes in certain organs of the body and in the muscular tissue, co-existing with the extreme general emaciation of the body. These changes were of two kinds. In the liver, kidneys, and pancreas there was a positive infiltration or accumulation of fat, not a substitution or degeneration; for, after the fat had been removed from them in the process of mounting microscopical preparations, the natural structures were found to be perfect; the epithelial lining of the tubules of the kidney more especially was as regular and well preserved as in the illustrations given in books. In the muscles, on the other hand, there was a true fatty substitution or degeneration.

A HANDY METHOD OF EXAMINING MORBID TISSUES MICROSCOPICALLY (*The British Medical Journal*, September 5, 1874).—Take a portion of nerve-tissue, about the size of a large pin's head, from a thoroughly defined locality, press it out gently under a covering-glass on a slide, remove the covering-glass, and apply to the mass left on the slide a drop of "Judson's simple (aniline) magenta dye," diluted with eight drops of water; with a needle, mix the dye and the nerve-matter carefully, and cover the preparation with a clean covering-glass, again gently pressing it out to such an extent that light can pass through it. On submitting a specimen thus prepared to the microscope, it will be found that the cells, the nuclei of the neuroglia, and the blood-vessels, are beautifully tinted a deep crimson color, leaving the other tissues almost unaffected. Morbid products are also well brought into view, either by their ready absorption of the dye, as in the case of amyloid bodies, or by their refusal to take on the tint, as in the case of colloid bodies. Hæmatoidin accepts the color all too readily, but the practised eye soon recognizes its appearance. Pigmentary degeneration of cells is well shown, nucleus and nucleolus being thoroughly demonstrated; the poles can also be traced for long distances.

PERCHLORIDE OF IRON IN POST-PARTUM HEMORRHAGE (*The British Medical Journal*, September 5, 1874).—Mr. W. P. Swain records two cases of post-partum hemorrhage, in the first of which all the usual resources, except galvanism, had been tried in vain, and in the second so rapid and large was the loss of blood that nothing short of *immediate* arrest could have saved the patient. The injection of perchloride of iron was entirely successful in both instances.

INFLAMMATION OF THE WRIST-JOINT (*Medical Record*, September 1, 1874).—In a case of fracture of the fore-arm, with phlegmonous erysipelas and inflammation of the wrist-joint, it was deemed possible to save the limb if the joint could be placed perfectly at rest and at the same time all pressure could be removed from the articular surfaces. To fulfil these indications, Dr. Sayre used an apparatus which he describes as follows. Take a piece of sole-leather, long enough to reach from the digital extremity of the palm of the hand to near the flexure of the elbow, and wide enough to half or two-thirds surround the arm. Dip it in cold water, and make it thoroughly flexible. Cover it with a piece of adhesive plaster, plaster-side out, long enough to go completely around it lengthwise, and lock. Now, having covered each opening with a piece of oakum, apply the leather-lined plaster to the palm of the hand, mould it, and secure it with a roller bandage as far as the wrist. Having arrived at that point, grasp the hand already covered, while an assistant grasps the arm near the elbow; then, making extension and counter-extension until the patient tells you that all pain is relieved, bring the remainder of the leather-lined plaster against the fore-arm, and secure it with a continuation of the bandage. In this way all pressure is removed from the articular surfaces, pain is relieved, and an apparatus is afforded which retains everything at perfect rest.

AXILLARY ANEURISM — LIGATION OF SUBCLAVIAN ARTERY — RECOVERY (*Canada Medical and Surgical Journal*, August, 1874).—Dr. George Ross reports the case of a young man who suffered from a right axillary aneurism of two months' duration at the time when he came under observation. His right arm hung cold and livid by his side, all motion in it being limited to slight action of the biceps and deltoid muscles. The second and third phalanges were rigidly flexed upon those of the first row; there was not the faintest pulsation in either the radial, the ulnar, or the brachial artery. In the axilla there was a tumor the size of a large lemon, which fluctuated, pulsated forcibly, gave a very perceptible thrill to the hand, and by auscultation a whizzing bruit. The pulsation was entirely controlled by pressure on the subclavian over the first rib. Digital impression was faithfully tried for forty-eight hours, but was unsuccessful and was abandoned. It was then decided to ligate the subclavian in its third portion; and this was done. The ligature was of carbolized catgut, the end being allowed to hang out of the wound. He subsequently had diarrhœa and some troublesome febrile symptoms, but at the end of four weeks the wound had entirely closed in its deeper part, and the mass of the aneurism had shrunk to about one-fourth its original bulk. About this time he had a severe cough, and expectorated a large quantity of thick, dark pus, but afterwards made a very good recovery.

MONOBROMIDE OF CAMPHOR (*The Practitioner*, August, 1874).—Dr. Bonneville believes that from about forty experiments, which lead him to attribute powerful sedative properties to monobromide of camphor, he is justified in drawing the following deductions:

1. Monobromide of camphor diminishes the number of beatings of the heart, and determines contraction of the blood-vessels of the iris and eyelids.

2. It diminishes the number of inspirations.

3. It lowers temperature in a regular and constant manner. In fatal cases the lowering increases till the end. In those which recover, the lowering is followed by an elevation of temperature, which returns to its initial figure, but in a longer time than that during which the lowering was effected.

4. Monobromide of camphor possesses undeniable

hypnotic properties. It seems to act principally on the cerebral nervous system.

5. It does not seem that the medicament is got accustomed to, and its protracted use determines rather rapid loss of flesh in cats and guinea-pigs. He has used it with advantage in delirium tremens, insomnia, infantile convulsions, paralysis agitans, chorea, hystero-epilepsy, etc.

Comparison between the Action of Bromal Hydrate and that of Chloral Hydrate (*Edinburgh Medical Journal*, July, 1874).—1. Bromal hydrate is a more active substance, physiologically, than chloral hydrate. Four or five grains will cause death in a rabbit which would require about twenty grains of chloral.

2. Chloral hydrate produces, in small doses, or soon after a large dose, marked hyperæsthesia, followed by anæsthesia. Bromal hydrate never produces hyperæsthesia, and anæsthesia only when the animal is in such a state of coma that there is no hope of its recovery.

3. Chloral hydrate does not usually produce great contraction of the pupil. Bromal hydrate always does.

4. Chloral hydrate acts chiefly on the cerebral hemispheres, and never causes convulsions. Bromal hydrate acts less vigorously on the hemispheres, and more on the ganglia at the base of the brain and on the spinal cord,—the animal frequently dying in a state of opisthotonos.

5. After death from chloral hydrate, fluid is rarely found in the short sacs of the body. In the case of bromal, fluid is almost invariably found.

6. Chloral hydrate does not usually stimulate the salivary glands to the same extent as bromal hydrate does, but in this instance there are exceptional cases in which chloral causes excessive secretion of saliva in animals.

Amenorrhœa (*The Medical Record*, September 1, 1874).—Prof. Alexander Skene considers anæmia as the most common cause of amenorrhœa. After having successfully treated this condition by the ordinary remedies,—iron, quinia, alcohol, etc.,—there are still some cases where the amenorrhœa persists after all the constitutional troubles have disappeared. It then becomes necessary to use means with a view to excite directly the uterus to action. Most so-called emmenagogues act by producing irritation and congestion of the pelvic organs, and are always uncertain, and often injurious. In their place for several years Prof. Skene has given chloride of ammonium in five-grain doses every three or four hours, and has obtained good results. He believes that it acts by favoring the rapid exfoliation of the epithelial lining of the uterine mucous membrane. Perseverance is an important element in the management of such cases. There are few exceptions to the rule that, no matter how long-continued the amenorrhœa may be, the menses will ultimately be normally established.

Paralysis from Fright (W. Jelly, in *Brit. Med. Journal*, 1874, No. 695).—The patient in this case was a Spanish woman, aged 22, who had previously been in good health, but who, immediately after a cannon had been discharged in her immediate neighborhood, found that she was unable to advance a step.

Her lower limbs were stiff, and soon the left, and, later, the right one became very weak, while her gait was waddling and unsteady. Her general health was good, the functions of defecation and urination not interfered with, and her menstruation was not interrupted.

There was no disturbance of sensation, but there was moderate pain in the spinal column from the eighth dorsal to the third lumbar vertebra, and the lower extremities felt cool. Numerous forms of treatment were tried, but without result. Jelly thinks that owing to the sudden change of the pressure of the air in their immediate neighborhood the meninges of the spinal column were torn.

The Hypodermic Use of Quinine (*New York Medical Journal*, September, 1874).—Dr. Stephen Rogers considers the use of quinine hypodermically a dangerous experimental medication, and rarely justifiable. He believes that the whole subject may be epitomized as follows:

1. The hypodermic method of giving quinine involves a surgical operation of considerable discomfort, not to say pain, and hence should not be employed unless under circumstances rendering it indispensable.

2. The operation is extremely liable to be followed by more or less severe and protracted local inflammation, abscess, and very possibly tetanus. It should therefore be avoided if possible.

3. It is very easy to avoid these pains, discomforts, and dangers, without in the slightest degree lessening the chances of recovery of the victim of miasmatic disease.

4. The risk connected with the hypodermic method is not at all necessary, for the available means to accomplish the results which that method claims are abundant, and in no respect less reliable or more expensive.

The Dispersion of Tumors by Puncture (*The Lancet*, August 22, 1874).—Deputy Inspector-General Cameron calls attention to the fact that in Eastern countries the natives have from time immemorial been accustomed to attempt to bring about the absorption of the enlargements of the liver and spleen, so common in hot, malarious countries, by the use of puncture with long, sharp stilets of considerable thickness. He never in any instance saw inflammatory or other bad symptoms produced by such operations. Other enlargements may be made to disappear by the same method. Chronic glandular swellings have been greatly benefited in this way, and it is even possible that such growths as fibrous tumors of the uterus might be dispersed by it. In the case of an infant a few months old, who had a tumor about the size of a pigeon's egg, smooth, movable, painless, and situated in front of the upper edge of the quadratus lumborum muscle halfway from the spine, a firm, deep puncture produced a speedy disappearance of the growth.

Fibrous Anchylosis (*Medical Record*, September 1, 1874).—Dr. Louis A. Sayre believes that in those cases of fibrous anchylosis which most closely assimilate bony anchylosis, a distinguishing feature is that if movements are made at the joint, and any motion whatever is secured during the manipulation necessary to a thorough examination of the case, it will be followed by more or less of pain within twenty-four hours. For when bony anchylosis is present, no movements at the joint can be made, consequently pain will not be produced at the point of anchylosis. This rule will be found to be reliable. The subsequent occurrence of pain in and about the joint, even if there be no apparent motion, will justify measures calculated to give to it gradual restoration of motion.

Treatment of Hæmorrhoids.—Dr. William Colles (*Dublin Jour. Med. Sci.*, June, 1874), having under his care a severe case of "bleeding piles" where all former treatment, including applications of fuming nitric acid, had been of no avail, concluded to try injections of perchloride of iron. For this purpose twenty minims of the ordinary tincture were injected into each mass by means of a hypodermic syringe. The injection caused less pain than the nitric acid, and one administration sufficed to remove the hæmorrhoids completely.

EXCISION OF THE SHOULDER-JOINT (*The British Medical Journal*, September 5, 1874).—Sir John Rose Cormack reports the case of a man from whom he removed the head of the humerus, with three and a half inches of the shaft, which had been shattered by a rifle-ball. He entirely recovered, without any loss of sensation, and having all the motions of the arm except those of elevation and abduction, the deltoid being the only muscle much affected.

HYPODERMIC INJECTION OF ERGOTIN IN PURPURA HÆMORRHAGICA (*The British Medical Journal*, September 5, 1874).—In a case of purpura hæmorrhagica, occurring during the progress of typhoid fever, and immediately after a severe epistaxis, two injections of one grain each of the liquid extract of ergot completely arrested the hemorrhage from the nose, stomach, and bowels, and the patient, who was previously at the point of death from syncope, rallied and made a perfect recovery.

LOCAL ACTION OF IPECACUANHA (*The Practitioner*, September, 1874).—Dr. De Mussey records a case of purulent ophthalmia in a new-born infant, in which, after all other remedies had failed, he succeeded in producing a cure by the use of the following decoction:

℞ Ipecac root, ʒss;
Water, ʒv.

Boil for ten minutes, and, when cool, strain off.

IODIDE OF POTASSIUM IN ACUTE AND CHRONIC BRONCHITIS AND ASTHMA (*The British Medical Journal*, September 5, 1874).—Mr. W. H. Spurgiss has used iodide of potassium in over one hundred cases of the above diseases, and with invariable success, now rarely giving anything else.

MISCELLANY.

BLOOD-DRINKERS. — Upon inquiry at slaughter-houses, it is found that there are nearly two hundred persons in the city of New York who are in the habit of drinking blood flowing warmly from oxen, for strengthening purposes and for the cure of certain diseases. A lady is reported to have spoken to an inquirer as follows: "Professor Velpeau, of Paris, prescribed blood for me. I was consumptive and hastening to the grave. It has prolonged my life fifteen years. I had the utmost repugnance for it at first, but now a half-pint of hot blood from a well-conditioned ox is the greatest luxury of my life. My sister's baby so far has been preserved and nourished with little else but blood. I know twenty persons who drink it in my own neighborhood to whom I have recommended it. It has extraordinary effects on some people, especially women, but should not be resorted to unless there is absolute weakness of the system." On a visit of the inquirer to a slaughter-house in Tenth Avenue, near Forty-second Street, he found a delicate-looking woman with a sickly boy holding a glass to the blood which ran from an ox with his throat cut. Both drank two or three glasses in turn, and departed with an appearance of added vigor. One of the butchers was asked whether he ever drank blood, and is stated to have replied to the following effect: "Sure an' I do, now; why not, now? Faith, an' ye couldn't tell the difference between it an' milk. It's just as swate, shure, and in the winter it's warm and foine. Bedad but it's stringthenin', sure. Hould on, an' I'll get ye a drap. It's best warrum—runnin' right from the baste." The proprietor said, "All last winter we had men, women, and children every morning to drink blood. They always imbibe beast's blood; never the blood of sheep. Some of them wince a bit at first, but, when you close your eyes, blood warm from the beast's neck has just the same taste as warm milk from the cow. We don't charge for the blood, excepting when we sell it to sugar-refiners." The blood of beeves is asserted to be more efficacious for weak lungs than cod-liver oil.—*The Laboratory.*

THE statistics of the New York Board of Pharmacy indicate the wide area from which the American drug trade is recruited. During the year ending June last they registered 62 proprietors and 101 assistants. Of the proprietors there were—natives of the United States, 24; Germany, 19; England, 4; Ireland, 9; Canada, 3; and Austria, Russia, and Cuba, 1 each. Of the assistants, 37 were born in the United States, 32 in Germany, 8 in England, 5 in Ireland, 3 in Canada, 4 in France, 3 in Russia and Poland, 2 each in Scotland, Austria, and Sweden, and 1 each in Norway, Cuba, and Costa Rica.

DR. FRANCIS E. ANSTIE, so widely and favorably known to the profession throughout the world for his masterly treatise on neuralgia and his other numerous contributions to medical science, died on Saturday, September 12, after an illness of only three days. His attack is said to have been produced by exposure to sewer-emanation while examining the sanitary defects of a school at Wandsworth. In him the British profession loses one of its brightest ornaments.

"NOTHING NEW UNDER THE SUN."—Doctor Mordtmann, of Constantinople, publishes in the *Gazette Médicale de l'Orient* some curious details he has discovered in some old Oriental chronicles, tending to show that the Siamese Twins, as well as the Sisters Milly and Christine, had prototypes in former times. According to these Byzantine chronicles, there came from Armenia to Constantinople, in the year 744, a monster, consisting of two children born of one mother. These children were attached to each other at the epigastrium, so that they faced each other, the other parts of their bodies being regularly formed. During their sojourn in the Byzantine capital numbers flocked to see this monstrosity; but, as the twins were superstitiously regarded by the ecclesiastical authorities as being of bad augury, they were expelled the city, to return again when a comparatively enlightened emperor ascended the throne of the Cæsars. One of these twins died, and the most skilful physicians endeavored to divide the survivor from the corpse at the point of juncture, in the hope of saving his life. The operation, however, only served to prolong its duration for three days.—*London Medical Record.*

THE INSTINCT OF BIRDS.—The foresight of birds of a coming epidemic of cholera has been occupying the attention of the *Jardin Zoologique*. That journal states that, a few days previous to the terrible ravages of cholera in Gallicia in 1872, all the sparrows suddenly quitted the town of Przemysl, and not a single bird returned until the end of November, when the disease had entirely disappeared. The same circumstance was remarked in Munich and in Nuremberg. During the attacks of cholera at St. Petersburg and Riga in 1848, in Western Prussia in 1849, and in Hanover in 1850, every swallow and sparrow forsook the town, and remained absent until the eradication of the scourge.—*British Medical Journal.*

THE FAMILY BONAPARTE.—Madame Letitia Rattazzi, one of the members of the family Bonaparte, has for some months been visiting the principal towns of Europe, to study the ways and means of establishing a hospital which shall be especially devoted to the treatment of cancer. As is well known, several of the members of this family have succumbed to this terrible disease. The first deposit will be 150,000 francs, to which will be added a biennial prize of 5000 francs for the best work on the subject, as well as a sum of 20,000 francs for him who shall describe the true cure for cancer.—*London Medical Record.*

A "PHARMACIEN" of Paris has been condemned to pay a fine of five hundred francs for selling pastilles of calomel without a physician's prescription.

DR. SOUBEIRAN, assistant professor at the Paris School of Pharmacy, has lately been appointed to the professorship of pharmacy in the Montpellier school.

NOTES AND QUERIES.

MEDICAL EDUCATION.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—For the past ten years I have associated with all classes of physicians, not only in the United States, but also in different European countries; and, after a careful investigation, I find nothing so pernicious in the advance of medical science as the admittance into its ranks of gentlemen whose preliminary education has been neglected, and who are unqualified to discharge the duties which they have assumed. Most of the European colleges require that the students spend twelve years in their preliminary medical education, and, after they have passed their collegiate examination, they are required to pass the State "Faculty Board" before they are allowed to practise; and then it is certified whether they are physicians, surgeons, or both. I knew quite an eminent physician, from London, who was required to appear before the "State Board" in South America previous to practising, and failed to pass his first examination, and also his second, six months afterwards, and had to return to London, although he was a regular graduate of medicine. Had he come to the United States, the question would never have been asked if he was a graduate or not. It is a well-known fact that in no place in the civilized world are medical diplomas given out so promiscuously and unceremoniously as in the United States.

Only three medical colleges in the United States are recognized by the South American State Faculty, and even the graduates of those colleges are required to have a certificate from the State Board before they are allowed to practise; while in Europe no one is allowed to practise unless he first passes the State Board. For some time during the late European war I had as assistants two medical cadets who had served five years at the University of Berlin, and who were well qualified to be ranked as physicians, but the laws of the country would not allow it. Myself and forty-two other American graduates who had passed the appointed board of the German Empire were assigned on probation duty for six weeks in Coblentz, under the surveillance of the State Faculty, to test our qualifications before we were assigned to special duty. So much for Germany. In our free and enlightened country the medical refuse from the four quarters of the earth are allowed to practise and hold responsible positions with all the dignity of the learned profession. In Biblical writings and in ancient history we find the priests the men of medicine, as they were the most learned; and it was not until the twelfth century that the Council of Tours sent forth the famous edict forbidding the clergy to practise the healing art. In European countries the physicians are required to be better educated than the general class of society,—equal to that of the priests; while in this country we have in the profession the most ignorant, unrefined, and uneducated. In this, as well as in all other cities in the Union, we have a large number of so-called doctors who have never attended a single lecture or received any preliminary education; but still they are recognized as physicians, and admitted into medical associations as dictators to those who are properly educated. It is impossible for any man to discharge the duties of a physician if he is not qualified for it. His every action has a tendency to bring into disrepute the profession in general. It is impossible to elevate the character of the medical profession to its proper standard until there is some legislation in the matter prohibiting colleges from granting diplomas as they now do, and preventing quacks of every variety from practising medicine. During the past six months I have endeavored to impress upon the minds of certain members of Congress the importance of passing a national law forcing a reform in the medical profession. I think every true physician and the people from one end of the land to the other should rise, pointing to the graves of the friends and relatives who have been victims of the ignorant and of quacks, and demand of Congress a national law elevating the standard of medical education and requirements. Until this is done, the physicians as a class will have neither character, standing, nor dignity as they should, nor will the people be free from impostors.

A. TREGO SHERTZER, M.D.

BALTIMORE.

FOUR AT A BIRTH.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—On the evening of September 18, a negro woman, aged over 40, in this vicinity, gave birth to four well-developed children, three girls and one boy. One of the girls was still-born, but I am confident that pressure during a protracted labor produced its death. There were two placentas; three of the children were attached to one, while the dead one was attached alone to the other. No physician was present during her labor, an old negress being the only attendant, and her description of the accouchement was highly interesting and graphic in the extreme.

Respectfully,

JOHN W. PITTS.

BERLIN, MD., September 22, 1874.

AT a special meeting of the Medical Board of Charity Hospital, held September 22, 1874, the following resolutions were adopted:

"*Whereas*, It has pleased the All-wise Providence to remove from our midst our friend and colleague Dr. Washington Atlee Hoffman, be it therefore

"*Resolved*, That the Medical Board of Charity Hospital express their heart-felt sorrow at his death.

"*Resolved*, That we hereby tender to the family our sympathy in their bereavement.

"*Resolved*, That a copy of these resolutions be presented to the medical journals for publication; and that the Medical Staff of the hospital attend the funeral in a body.

"H. LEAMAN,
"*Secretary.*"

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM SEPTEMBER 22 TO SEPTEMBER 28, 1874, INCLUSIVE.

SMITH, JOS. R., SURGEON.—When relieved by Assistant-Surgeon Koerper, to proceed to Fort Monroe, Virginia. S. O. 190, Military Division of the Atlantic, September 24, 1874.

KOERPER, E. A., ASSISTANT-SURGEON.—In addition to his duties at Detroit, Michigan, to relieve Surgeon Smith of his duties at Fort Wayne, Michigan. S. O. 190, c. s., Military Division of the Atlantic.